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10/712,312

11/14/2003

Hitoshi Yamagami

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EXAMINER

DEODHAR, OMKAR A

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/712,312 | Applicant(s) YAMAGAMI, HITOSHI | |
| | Examiner OMKAR A. DEODHAR | Art Unit 3714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/24/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Non-Final Rejection

Response to Amendment & Arguments

This is responsive to the RCE & claim amendments submitted 11/24/2008.

Applicant's arguments have been considered but are not persuasive.

Applicant argues that Ohno does not use non-volatile memory. The previous Office action cited to where Ohno disclosed non-volatile memory (EEPROM). However, since the relevant portions of Ohno (namely Figure 10 & the related description) explicitly show a volatile SRAM & discuss it as such, Miyamoto has been relied upon for teaching a game backup system using non-volatile memory. This forecloses Applicant's argument and overcomes the alleged shortcomings of Ohno's system.

Next, Ohno's classification of data as "old" imparts information regarding when the data was last written/accessed. Old data is deleted to provide storage of recent data.

Finally, Applicant's argument that Ohno fails to teach the two conditions of prohibiting writing, i.e., 1) a predetermined number of unsuccessful write attempts must have been performed; and 2) only a backup area containing older game data saved from a previous gaming session is available as a write-objective backup area, **is** persuasive.

But, this concept is obvious – If a block of memory is write protected, attempts to write to it will be unsuccessful. So, if the system is to write to memory, it will only be able to write to available (unprotected) memory. Ohno

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teaches first selecting which area of memory to be used, then write protecting the non-selected area and finally deleting oldest data to accommodate newer data.

(Figure 10). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to write to unprotected memory (Ohno's "old" data) after unsuccessful attempts to overwrite write protected memory for the purpose of not destroying critical data.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 5-7 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US 6,220,964) in view of Ohno (US 5,609,525).

Claims 1, 5:

Miyamoto teaches a game machine that is provided with an electrically rewritable nonvolatile memory having two or more game data backup areas (Figure 2, RAM 26 contains a plurality of game backup areas), said game machine being capable of preserving at least some older game data when attempting to overwrite a game data backup area with latest game data (See Col. 2. Lines 41-47 discussing writing one player's data to memory without overwriting another player's data. The player data already stored in memory is interpreted as older game data whereas the newer data sought to be stored to memory is interpreted as more recent data);

Miyamoto does not teach:

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backup memory area selection programmed logic circuitry which selects, as a write-objective backup area for storing latest game data, a backup area containing previously stored game data of oldest writing age among said two or more game data backup areas;

(In a related invention, Ohno teaches overwriting older data with newer data. See Ohno Figure 10, Step ST 9, sub step a). This teaches selecting the backup area with the oldest data for overwriting. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to overwrite older data first, as taught by Ohno, in Miyamoto's game backup system. This is viewed as a substitution of known elements with the predictable results of storing newer game data at the expense of old game data).

Miyamoto teaches:

A memory controller (See Miyamoto, Figure 3) for writing the latest game data to a backup area selected as said write-objective backup area by said area selector; memory write determination programmed logic circuitry configured to determine whether or not a writing of the latest game data to said backup area selected by said backup memory area selection programmed logic circuitry was successful; (Miyamoto's system inherently determines whether data was written unsuccessfully or successfully)

Miyamoto does not teach:

memory write attempt repeater programmed logic circuitry configured to repeatedly attempt writing to the write-objective backup area for a predetermined number of attempts if it is determined by said memory write determination

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programmed logic circuitry that a writing of the latest game data is was not successfully performed;

(Ohno teaches the claimed repeater logic circuitry. See Ohno Figure 10, Step ST 9, sub step b) where after the deletion of old data, the process returns to Step ST 6. This continues until the system determines there is no more data in the selected area at step ST 7 & initializes the selected area for processing. This is interpreted as teaching repeated attempts to process data.

Also, Ohno teaches first selecting which area of memory to be used, then write protecting the non-selected area and finally deleting oldest data to accommodate newer data. Were the system to attempt to write to protected memory a number of times, it would be unsuccessful.

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to write to another, old memory region after unsuccessfully attempting to write to write protected regions as taught by Ohno, in Miyamoto's system. This modification is viewed as a substitution of known elements with the predictable results of not overwriting critical data);

Miyamoto does not teach:

writing prohibitor programmed logic circuitry configured to prohibit further attempts of writing the latest game data to said selected writ-objective backup area and end a game data backup area writing process without storing the latest game under conditions wherein an attempt to write the latest game data to said selected write-objective backup area is unsuccessful after said predetermined number of attempts and only a backup area containing older game data from a

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previous gaming session prior to generating said latest game data is available as a write-objective backup area, wherein a failure of a memory element occurring in said electrically rewritable non-volatile memory does not result in a loss of older game data stored in a last remaining available backup area.

(Ohno teaches write protection. See Figure 10 steps ST4 & ST7. When regions of memory are write protected, other memory regions are written to. Ohno refers to such regions as "selected" & "not-selected" areas.

If a block of memory is write protected, attempts to write to it will be unsuccessful. So, if the system is to write to memory, it will only be able to write to available (unprotected) memory. Ohno teaches first selecting which area of memory to be used, then write protecting the non-selected area and finally deleting oldest data to accommodate newer data. (Figure 10). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to write to unprotected memory (Ohno's "old" data) after unsuccessful attempts to overwrite write protected memory in Miyamoto's system for the purpose of not destroying critical data. Furthermore, since Miyamoto teaches non-volatile memory, a failure of a memory element would not result in total data loss).

Claim 2:

A game machine according to claim 1, wherein said memory write determination programmed logic circuitry includes a historical information storage programmed logic circuitry for recording historical information including information relating to a write age of generated game data, said historical information being included as part of said latest game data, and for

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determining an age of said generated game data relative to a write age of other stored game data based on said historical data; and said backup memory area selection programmed logic circuitry includes an earliest write age selector which, before writing the last game data, selects as the write-objective backup area a backup area stored with game data that was written earlier than an age of the latest game data based on said write age information.

(See the rejection of claim 1 above & further note that in Step ST 9 of Figure 10, Ohno teaches deleting old data. Ohno's classification of data as old imparts information regarding when the data was last written/accessed. Old data is deleted to provide storage of recent data. Historical data is thus inherent.)

Claim 6:

A game data backup control method according to claim 5, wherein said attempting a writing of said latest game data includes attempting a writing of historical data used for discriminating between relative write ages of previously stored game data, said historical data being included as part of said latest game data. (See the rejection of claim 2 above & further note that Ohno explicitly shows in Figure 10 the claimed discrimination between old data & recent data. The old data is overwritten.)

Claim 7:

A game data backup control method according to claim 6, wherein said selecting a backup area as a write-objective backup area includes, before writing said latest game data, selecting a backup area stored with game

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data written earlier than an age of said latest game data based on the historical data. (See the rejection of claims 2 & 6 above).

Claim 10:

A game data backup control method for controlling whether or not last-latest game data is written into designated data storage backup areas in an electrically rewritable nonvolatile memory of a game machine, comprising:

selecting, as a write-objective, a backup area in said non-volatile memory that contains an oldest written game data and which is available for storing said last game data; and

canceling writing of said last-latest game data into a selected write-objective backup area and prohibiting further writing of said latest game data into a selected write objective backup area under a condition wherein writing into said selected write- objective backup area is not successfully executable after a predetermined number of repeated attempts and only a backup area containing older game data stored from a previous gaming session prior to generating said latest game data remains available for selection as a write-objective backup area, wherein a failure a selected backup area within the electrically rewritable non-volatile memory device does not result in a loss of older said-game data that was in a last remaining available backup area. (The limitations are taught as presented with respect to claims 1, 2 & 5, above. Since attempts to write to write-protected data are prohibited, the writing is cancelled. As explained above, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to write to unprotected memory after unsuccessful attempts

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to overwrite write protected memory in Miyamoto's system for the purpose of not destroying critical data.)

Claims 4, 9 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (US 6,220,964) in view of Ohno (US 5,609,525) as applied to claims 1 and 5, in yet further view of Examiner's Declaration.

Claims 4 & 9:

The prior art combination teaches the invention substantially as claimed, but does not teach message displaying programmed logic circuitry to display a predetermined alarm message when the writing is prohibited by said writing prohibitor.

When attempting to write or delete data on a write protected floppy disk, the command prompt outputs a message that the media is write-protected. In the mid 1990's, the Examiner used floppy disks to store information. When attempting to write or erase data on a write-protected floppy disk, the command prompt outputted a message informing me that the media was write-protected. See Examiner's Affidavit.

It would have been obvious to one of ordinary skill in the art to display a message when attempting to write to protected data in the system of Miyamoto in view of Ohno as taught by Examiner's Declaration for the purpose of alerting users of their attempts to overwrite protected data.

Claim 11:

In a game machine having a nonvolatile memory, said memory including a plurality of electrically rewritable game data backup storage areas, a method of

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backing up game data, comprising:

generating last game data corresponding to latest conditions in a game being played;

designating one of said game data backup storage areas that contains an oldest written game data relative to game data written in other backup storage areas as a write-objective target for storing said latest game data;

canceling writing of said latest game data into said designated write-objective target backup storage area and prohibiting further attempts at writing into a selected backup

storage area under a condition wherein an attempt in writing to said designated write-objective target backup storage area in an unsuccessful storage of said latest game data after a predetermined number of repeated unsuccessful attempts and only a backup storage area that contains older game data that was stored from a previous gaming session prior to generating said latest game data remains available for selecting as a write-objective target; and

causing a display of said game machine to display an error message indicative of an unsuccessful saving of said latest game data and/or a broken backup storage memory condition wherein a failure of a memory element in said electrically rewritable non-volatile memory does not result in a loss of older game data stored in a last remaining available backup area. (See the rejection of claims 1, 2, 4, 5 & 9).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMKAR A. DEODHAR whose telephone number is (571)272-1647. The examiner can normally be reached on M-F: 8AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OAD/

/Corbett Coburn/
Primary Examiner
AU 3714